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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|-----------------------|-----------------------------|------------------|
| 10/667,241 | 09/18/2003 | Kevin M. Christiansen | 18602-08301 | 2909 |
| 758 | 7590 | 05/23/2006 | EXAMINER SORRELL, ERON J | |
| FENWICK & WEST LLP SILICON VALLEY CENTER 801 CALIFORNIA STREET MOUNTAIN VIEW, CA 94041 | | | ART UNIT 2182 | PAPER NUMBER |

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/667,241 | Applicant(s) CHRISTIANSEN, KEVIN M. | |
| | Examiner Eron J. Sorrell | Art Unit 2182 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/25/05</u> | 6) <input type="checkbox"/> Other: ____ |

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DETAILED ACTION

Reissue Applications

1. The reissue oath/declaration filed with this application is defective (see 37 CFR 1.175 and MPEP § 1414) because of the following: New claims have been submitted without specifically pointing out the differences from the original claims.

2. Claims 1-26 are rejected as being based upon a defective reissue declaration under 35 U.S.C. 251 as set forth above. See 37 CFR 1.175.

The nature of the defect(s) in the declaration is set forth in the discussion above in this Office action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 21-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawai et al. (U.S. Patent No. 5,584,010).

5. Referring to claims 21 and 26, Kawai teaches a memory access controller (see item 103 in figure 6) adapted to be coupled to a computer system memory (see item 100 in figure 6) and an Input/Output device (I/O) device (see DSP-2 or DSP-3), comprising:

a register (see item 251 in figure 7) for storing a data status signal generated by the I/O device after the I/O device transfers a data unit to an external system (see lines 12-25 of column 9, see also figure 10B); and

circuitry coupled to the register (see item 260 in figure 7) for receiving the data status signal and for controlling subsequent operation of the memory access controller based on the status signal (see lines 27-51 of column 10).

The rejection above is based on the following reasoning:

DSP-1 wants to send data to DSP-2 (I/O device), however DSP-2 is busy sending data to the external memory (external system), therefore DSP-2 is busy (see figure 10B), once DSP-2 is finished sending data to the external memory, it sends a status signal to

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the DMA controller of DSP-1 informing DSP-1 that it is now ready to receive data (see lines 15-26 of column 11).

6. Referring to claim 22, Kawai teaches the data status signal indicates the end of a data unit (see lines 31-35 of column 9, note the status is updated to reflect the state of the local bus, if there is a transition from a busy state to a ready state, then there was an end to the previously transferred data unit).

7. Referring to claim 23, Kawai teaches the memory controller executes an instruction in response to the data status signal (see lines 11-15 of column 9).

8. Referring to claim 24, Kawai teaches the data status signal is used to prompt the memory access controller to request information from the I/O device (see figure 10B, note if the destination, DSP-2 (I/O device) is busy, its continually checked until it becomes ready).

9. Referring to claim 25, Kawai teaches the data status signal is used to keep the channel process active (see lines 11-15 of

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column 9, note the channel is kept active with the subsequent data transmission).

Allowable Subject Matter

10. Claims 1-20 are allowable over the prior art but are rejected because of a defective declaration (see paragraph 1, above). The prior art of record fails to teach or suggest, alone or in combination, a system and method for transferring data comprising a memory access controller retrieving a data unit and transmitting the data unit to an I/O device, the I/O device data transmitting the data unit to an external system, the I/O device sending a status signal to the memory access controller, the memory access controller storing the status signal in a register therein which the memory controller uses to control its own operation, in combination with the other claimed limitations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J. Sorrell whose telephone number is 571 272-4160. The examiner can normally be reached on Monday-Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be

reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EJS
May 3, 2006



KIM HUYNH
SUPERVISORY PATENT EXAMINER

5/4/06